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OCTOBER, 1870.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than anything else.—RUSKIN.

Original Communications.

PELVIC RACHITIS.

BY JAMES T. WHITTAKER, A. M., M. D.

To the obstetrician the study of pelvic deformities is of great interest. Although these are comparatively rare in our country, their increase demands more attention for them than they have yet received from American physicians.

The existence of a deformed pelvis and its influence upon labor seems not to have been recognized by Hippocrates or his scholars. Dystocia was always occasioned by deformity or malposition of the fetus, or by complications of the cord or liquor amnii. In the sixth century, Aetius of Amida mentions a too firm connection of the pelvic articulations, which prevented their separation to a sufficient extent to permit the passage of the fetal head. The impossibility of such a separation was not shown until the time of Vesalius; his pupil Arantius (1572) first ventured the hypothesis of pelvic deformity, but the suggestion was supposed to be disproved by the accidental discovery by Severinus of a movable pelvis. Simple elevation of the pelvis by one of the femora of a criminal, executed ten days after labor, displaced the corresponding

side of the pelvis a full inch above the other. Severinus, who was a firm believer in the ancient views of Aetius, lost no opportunity of displaying this condition to Parè, Guillemeau, and other authorities, and thus the absence of any mention of pelvic contraction in their works finds easy explanation. In 1694, Mauriceau (*Traité des malad. des femmes*) communicated his observations in seven hundred labors, acknowledging the possibility of pelvic deformity, but denying its frequent influence upon labor; and though he was on several occasions forced to perform the cesarian section for rachitis, his entire information is contained in the sentence "hunchbacks very often have badly shaped pelves." Mauriceau, however, had already recognized the rigidity of the coccyx in aged females. Siebold, in his classical History of Obstetrics, places the seventh grand epoch at the time of the first cultivation of this department as a science by Heinrich von Deventer (1651–1724), a period embracing also the discovery of the forceps. In his *Novem Lumen*, Deventer was the first to describe and portray various pelvic deformities, with their influence on parturition. He demonstrated the individual differences of pelves in form, breadth, depth, and connection, and was the first to call attention to the important modifications induced by different degrees of pelvic inclination. In the abnormities of size he distinguished between the *pelvis nimis parva*, *magna* and *plana*. Of these the last is characterized by partial contraction, with shortening of the conjugate diameter; the true rachitic pelvis. When this condition exists he warns—*Periculum est, ne cerebrum infringatur aut lædatur.* The value of time, the process of configuration or adaptability of the fetal head, and the great harm of forcible acceleration of labor, are detailed with an accuracy not excelled in works of our own times. To Deventer then is due the honor of having discovered the real center about which have been crystallized the facts that have led to a true understanding and appreciation of both physiological and pathological labor, and it was at once justly hailed as the dawn of a new era.

Contemporaneously with Deventer, La Motte, of Paris, recognized pelvic deformity, particularly that variety characterized by a contraction of the *conjugata vera*, as one of the most frequent causes of dystocia. The contraction was caused by an undue prominence of the sacral promontory. When time failed to produce delivery in these cases he resorted to version by the feet; failing in this, to cesarean section. In 1753 Levret accurately described the normal

pelvis; established its divisions of entrance, cavity and exit; and fixed, though not accurately, the different diameters. His description of the various pelvic deformities showed a thorough knowledge of their nature; especially of the rachitic pelvis, which he declares the most frequent of all. The coincidence of deformity of the pelvis with that of the lower extremities, and the frequent occurrence of spinal without pelvic deformity, which he was the first to discover, are still acknowledged. His only means of diagnosis was the inability to introduce the extended hand, and this justified cesarian section.

With Smellie, a contemporary of Levret, the knowledge of pelvic deformity was fixed for all time. Accurate diameters were established for the normal pelvis, the means of estimating the *conjugata vera* from the *conjugata diagonalis* denoted, and rules of conduct laid down for the various degrees of contraction. His set of Anatomical Tables (London, 1754) have been hardly excelled since. The latter half of the eighteenth century and the beginning of the present witnessed the further prosecution of these studies. The rachitic, osteomalacic, synostotic, coxarthrocacic, scoliotic, and cyphotic varieties were rapidly distinguished, and various means of diagnosis employed. In these labors the names of Baudelocque, Stein, Osiander, Böer, Wigand, Naegele, and Michaelis, besides those above mentioned, are to be remembered.

Of all the forms of pelvic deformity the rachitic is universally admitted to be that of most frequent occurrence. Of four hundred and fourteen cases just reported by Stanesco (*Recherches Cliniques sur les Rétrécissements du Bassin, Basées sur* 414 *cas; par G. C. Stanesco:* Paris, 1869), four hundred and two were rachitic. This curious disease then must interest the obstetrician as well as the surgeon. Since, however, in the vast majority of cases, the obstetrician only encounters it in its irremediable stage, the discussion of its pathology would here be out of place. Suffice it to say that it is hereditary in certain families, and hence often enough congenital. When both parents are affected the child seldom escapes. Tuberculosis and syphilis of the parents are also positive predisposing causes; indeed a cure of congenital syphilis is rarely

effected without the sequela of rachitis.* Diseases of children themselves, particularly chronic intestinal catarrh, or any condition interfering with nutrition, as artificial nourishment, may likewise induce this disease. The direct cause of the deformity is the flexibility and softening of the bones, whereby prolonged pressure in any one direction may effect disfiguration. This softening is present only during the first stage of the disease — consequently in infancy and youth. In the second stage, the bones thicken in their abnormal direction to the solidity of eburnation in the third, in which all amenability to therapeutics is lost. The rachitic pelvis now presents four distinguishing characteristics (Tarnier's Cazeaux): 1. Contraction of all the diameters of the superior strait, particularly of the antero-posterior; 2. Diminution of the sacral curvature; 3. Escape of the inferior strait; or, in a few cases, increase in transverse diameter; 4. Enlargement of the pubic arch. Besides the influence of prolonged pressure above referred to, the action of the pelvic muscles exercises a most marked effect in producing or increasing the deformity. This was most admirably exhibited by Prof. Kehrer, at the late Medical Congress of Germany, by means of demonstrations with caoutchouc upon pelves decalcinated with nitric acid. "The form of the flat rachitic pelvis is caused by the weight of the body and the counter-pressure of the femora, upward traction of the spinal extensors on the extremity of the sacrum (with diminished action of the abdominal muscles), and traction of the rotators on the coccyx."

The diagnosis of this condition in pregnancy and parturition is not attended with difficulty. The disease may or may not be present in other parts of the skeléton. The estimation of the *conjugata vera*, by subtracting from one half to three fourths of an inch (according to pelvic inclination) from the *conjugata diagonalis*, as measured upon the index finger, will

*Children's Clinic Lecture, by Monte; Vienna, March 8, 1869.

afford an accurate evidence of the disease and its amount, and at once suggest the conduct to be observed in the management of the case.

The various instruments devised for the estimation of pelvic deformity remain but as testimony of the ingenuity of the mind of man. Such were the *appreciateur du bassin* of Coutoly; its modification, the *pelvimeter pluriformis* of Delberger; the *manus armata* of Stark, Kurzwich, and Koeppe; the *manus filigera* of Myer; the pelvimeters of Stein, Wigand, Osiander, and Aitken; and the pelvigraph of Martin, for internal measurements; the compasses and calipers of Baudelocque, Davis, Ritgen, and Martin, who is still their earnest advocate, for external measurement; and those curious instruments for combining both external and internal of Wellenburgh, Boivin, Van Huevel, Kirsch, and Brest. An insuperable objection to all the internal forms is the danger of injury to the vaginal walls by forcible distension, and to the external and combined forms, the inaccuracy of results. The method at present adopted in Prague—viz., the tape-line around the sacrum at the lumbar junction, and around the trochanters to the symphysis, which, after allowing for adipose development, should yield thirty-four inches—is more practicable and reliable. But even there the finger is also employed; and after all there is no means so certain, so trustworthy, and so constantly available as that with which nature has provided the obstetrician. The human hand in its range of action embraces the whole science of pelvimetry.

The value of regarding the pelvis with some degree of attention in even slight cases of deformity may be best illustrated by the two following cases, which have recently occurred in the author's practice.

January 25, 1870, called by Dr. Murray to a case of protracted labor, in which version had been repeatedly essayed. The patient had been forty-eight hours in labor without progress. A previous child had been delivered with forceps. Nervous prostration, quick pulse, feeble pain, and dry tongue indicated the necessity for immediate interference. The head was recognized at the superior strait, feet in the right upper quarter by external palpation; no heart sounds audible. The vagina was hot and dry, the os fully dilated,

and the head resting obliquely across the brim; *conjugata vera* three and a half inches. The case then was one of pelvic deformity, with a dead child. Of course there was but one indication—viz., extraction. Having only Simpson's short forceps, it was determined to resort to podalic version. This failed, even under full anæsthesia, and in different positions. With great difficulty the forceps were adjusted, and with still greater the head was delivered; the shoulders descended without rotation, which it was impossible to effect. Prof. M. B. Wright was then called in, and after a half hour's effort succeeded in delivering the shoulders transversely. The mother made a speedy recovery. My own practice in this case was certainly not the best. The head, which was very large, should have been perforated at once, and thus the patient been spared at least two of the three hours suffering.

July 19, 1870, called by Dr. Mosenmeyer to a case of pelvic deformity, in which there had been no progress in the labor for twelve hours. A previous child had been delivered after craniotomy. The Doctor had recognized the case at once (it had previously been in the hands of a midwife), and requested me to operate; the funis was prolapsed and cold, the head resting above the superior strait, a large caput succedaneum; the pelvis was of the flat rachitic type, and only three inches in the conjugate. The long and elegant French forceps now used in the Paris Maternité were easily adjusted, and the handles intrusted to Dr. M. Braun's trephine was inserted between the blades, and carefully forced against the head. Perforation under such circumstances was easy; being effected, the forceps were compressed, and the brain substance streamed out in mass. Delivery was completed in twenty minutes.

The conduct to be observed in all these cases at term—premising of course a head of natural size and density—may always be determined at once by the amount of pelvic deformity. Yet there is not that uniformity of sentiment upon this subject that might be expected in a department whose truths are so nearly axiomatic. The following is the range as given by Barnes (Obstetrical Operations, 1870): From four inches, the normal diameter, down to three and a half inches, nature may alone effect delivery; from three and a

half down to three inches, the forceps or version by the feet may accomplish birth, even with the child living; from three inches down to two inches—when there is a breadth of three inches in the transverse diameter—craniotomy and cranioclasm or cephalotripsy are indicated; below two inches, even down to one and a half, there is still hope from the chain-saws before the case be delivered over to cesarian section—"that last extremity of our art and the forlorn hope of the patient." (Davis by Barnes.)

Can nothing be done to avert the effects of this disease? In its early stages, in infancy, if recognized—and its symptoms are so plain that it always should be—treatment will be useful. Salt should be administered early in the disease, even more for infants than is given for adults; strong meat broths, rare beefsteak, cod-liver oil, and avoidance of amylaceous food, have yielded excellent results. Above all things should particular attention be given to the posture of the child; constant lateral decubitus deforms the head. The symmetry is to be maintained by frequent change. Premature support upon the arm, as nurses carry children in the sitting posture, exercises a decided influence upon the pelvis. These facts should always be specially regarded in the female child. Of course these remarks belong most properly to the domain of general medicine. When the obstetrician encounters a case it is his duty to institute a careful examination, and advise the patient of the hope left in the timely induction of premature labor.

The proximate cause of the difficulties attendant on parturition Barlow, in an essay on midwifery, imputes to habits of dissipation and voluptuousness, and deterioration of physical strength, rather than to an immediate infliction at the fall. "With her Creator's fiat that in sorrow should she bring forth," comments his reviewer, "we have nothing to do here; but of the fact that civilization and refinement increase the original difficulty we can entertain no doubt; for the contrast between the upper and lower classes of society, and still

more between the savage and the civilized, is too manifest not to carry conviction to the mind of the most inattentive observer." *

When Dewees wrote his work on midwifery he stated that the combined knowledge of all the American practitioners would not convey a good knowledge of a deformed pelvis. "City and house narrowness now do not offer more room for a new-comer than do their slender pelves." Luxury has swept rachitis in, and with it germs of other disease. The weed falls into rank soil. Can it be culled ere it spreads?

CINCINNATI, No. 101 W. Seventh St.

HYDRATE OF CHLORAL IN INSANITY.

BY JAMES RODMAN, M. D.,

Physician to the Western Lunatic Asylum of Kentucky.

A few days since I prescribed for a gentleman of delicate organization and spare frame forty-five grains of the hydrate of chloral, with the view of securing a comfortable night. Like doses for several previous nights had secured almost unbroken sleep of from seven to nine hours duration; failing in its effect but once, when a repetition of the dose after an interval of two hours produced the result desired. On the night of which I speak, again finding the quantity insufficient, he, without my knowledge, was permitted by his nurse to take two hundred and twenty-five grains more, making two hundred and seventy grains; this large quantity having been taken in

* The reader is referred to the very interesting accounts of labor in the Orient and in uncivilized lands, contained in Bland's Observations on Human and Comparative Parturition, and Siebold's History of Obstetrics. Compare also Exodus i, 16.

less than two hours. Deep sleep followed, which was regarded without concern by the attendant; and my attention was not called to his condition until seven or eight hours had elapsed.

I found him sleeping heavily but quietly; his skin rather warmer than natural; pulse full, strong, and less frequent than in health; it was difficult to arouse him to any sense of his surroundings; pupils sluggish and contracted; congested eyes; respiration fifteen and normal. Sleep continued, except when by considerable effort he was sufficiently aroused to swallow a glass of water, for eighteen hours, growing, however, less and less profound. He is now well.

The treatment of this case was by no means energetic. It was confined, in fact, to affusions of cold water to the head, and they not frequently repeated, having him "walked" for a few minutes at a time between two attendants, with now and then causing him to breathe the vapor of ammonia through the nostrils. In this comparatively expectant treatment I felt justified by the circumstances of his case; his condition, taken as a whole, exciting no special alarm. But even if there was a chemical antidote to the poisonous effects of chloral—and I know of none—the lapse of time would have made its exhibition useless. His appearance upon waking was that of a man who was emerging from a fit of profound alcoholic drunkenness, with some confusion of ideas and unsteadiness of gait. No headache followed, nor nausea or vomiting. He had a keen appetite; a healthy pulse; warm extremities; but, strange enough, complained of a constant sense of chilliness, which passed away in a few hours.

In none of the few cases which I have seen reported, in the journals I receive, of the toxical effects of this drug has so large a quantity been taken in so short a time. The person of whom I write showed no special insusceptibility to its influence. When it was first exhibited it produced its usual effect, and tolerance had only just begun to be shown when this enormous dose was taken.

In the case reported by M. Noir, where chloral was given to produce anæsthesia during an amputation — which it accomplished—the dose was five grammes, less than one third the amount taken in the case detailed above. The effects produced were widely different. In M. Noir's case "the body was observed to be very cold; his pulse, which had been one hundred and twenty, became filiform and uncountable; he woke up in violent delirium, with vomiting and pain in the stomach, continuing nearly eight hours, leaving the patient in the extremest prostration." M. Noir suggests that "some of the symptoms which arose might have been due to the idiosyncrasy of the patient." I think it possible that the operation—amputation of the leg—also was effective in bringing them about. Conclusions are not to be drawn from single cases, but I now doubt if chloral is as dangerous an agent as has been supposed by some. My experience with chloral is large, and leads me to record myself as one of those who would advocate its use in preference to opium and its preparations, where a hypnotic effect is desired, for the reasons now generally understood — comparative freedom from the vomiting, nausea, and constipation which so frequently attend the use of opium.

As an anodyne it is much less certain in my hands, failing often to free from or even mitigate severe pain unless pushed to the point of producing sleep. It is certainly a boon to hospitals for the insane, giving quiet and refreshing sleep where noisy wakefulness was the rule. There are many cases in most asylums—those of acute mania particularly—in which opium is not admissible, exciting such persons still further and rendering them more wakeful and noisy. It is here that chloral is invaluable; it often completely bridges a most embarrassing and dangerous difficulty, laying the foundations of final recovery. When the effect of chloral is not well sustained—evanescent, as has been noticed by some who have used it—and opium is not well borne, I would suggest the use of both

in moderate doses, at the same time, upon the hypothesis that that condition of the brain and nerves which forbids the use of opium alone is so modified, and for a sufficient length of time, as to allow the opium its common hypnotic effect.

I propose to try the effect of chloral as a substitute for alcohol in a case in which the passion for drink has subordinated the will completely, and the subject has no power of resistance when indulgence is possible. I do not offer my example as one for imitation; feeling, however, at the same time that if the maddening passion for stimulants can be allayed by an agent which produces quiet repose instead of the mortifying excitement and consequent exposure incident to alcoholic intoxication, that good has been accomplished. I wish to be understood as regarding this suggestion as the least of two evils merely.

HOPKINSVILLE, KY.

MALARIAL FEVERS AND THEIR TREATMENT.*

BY J. HALE, M. D.

Malarial fever differs in no material respect in the region of country in which I live from the disease as observed in other portions of the interior valley of North America. Intermittent, remittent, and pernicious are the three varieties of the affection commonly encountered. The latter fortunately is seldom met with now; and, as swamps are drained and the land brought under the care of the husbandman, it is rapidly

* This paper, which was read before the Kentucky State Medical Society at its meeting at Bowling Green in April last by the chairman as the report of the Committee on Malarial Fevers, has been kindly placed at our disposal by its author. We wish our space would allow us to publish the whole of the report, but the crowded state of our pages obliges us to content ourselves with an abstract of that portion only which relates to treatment.

disappearing. In its place, however, we have typho-malarial fever, which, though a less fatal, is generally a protracted, and not infrequently an exceedingly unmanageable, affection.

The several varieties of malarial fevers, though springing from a common cause and cured most quickly by a common remedy, are not all to be treated in just the same way. Temperament, idiosyncrasy, habits of life, age, season, etc., play in these as in other fevers an important part in their management.

In simple intermittent fever, quotidian or tertian, but little treatment is ordinarily required during the cold stage. If this stage be protracted, and accompanied by much pain in the back and limbs and head, opium in some form, hypodermically or by the mouth or the rectum, is *the* remedy. Warm, stimulating drinks are useful adjuvants. If there be irritability of the stomach, manifested by nausea and vomiting, sinapisms to the epigastrium, etc., do good. Alcohol in some shape, or the more diffusible stimuli, as ether and chloroform, are called for if there be much prostration. When reäction has fairly come on, iced drinks and crushed ice are demanded, and if the fever run high, sponging the entire surface with warm or cold water, or the use of the warm or tepid bath, as the patient may prefer, will materially shorten its duration.

In order to avert an expected paroxysm, we find that from twenty to thirty grains of quinine are necessary. We usually combine with this two grains of opium, or its equivalent of morphine, and begin its administration at least twelve hours before the chill is looked for. Unless there be something in the condition of the alimentary canal especially demanding interference, we seldom find purgative medicines necessary. If called on to use them, we are in the habit of combining ten or fifteen grains of blue mass with the quinia, which we give, as a rule, in the form of pills, always freshly made. This is a very brief outline of the course we have pursued for the last ten or fifteen years. We have seldom known it fail to avert the first paroxysm, and never, we believe,

to prevent the second. A single paroxysm being averted, I have not found it necessary to give quinine before the lapse of seven days, and not even then except in patients whose systems seemed surcharged with the poison, or in whom, in previous attacks, the disease had recurred on that day. I I think I have observed a peculiar tendency of the affection to recur in different people on different but given days. In some, relapses occur almost always on the seventh day; in others, on the fourteenth; and in others again, on the twenty-first day. After this period we have not observed the disease to show any special regularity of occurrence. This fact is of importance, as it enables us to anticipate and thereby prevent relapses.

In the treatment of remittent fever the one object is to bring the patient under the influence of quinia *with the least possible delay*. In our opinion it is *entirely unnecessary* to resort to any preparatory treatment whatever before beginning the quinia, and all time spent in doing so is that much time lost. Purgatives, as a rule, are ill borne in this variety of fevers; and, if used at all, they should be administered with great caution, since from their tendency to lower the vital powers they have seemed to me to heighten the intensity of the malarial poison. In cases where there is constipation and associated biliary derangement, I am in the habit of giving calomel along with the quinia—say ten grains of the former with twenty grains of the latter, divided into two doses and given at intervals of four hours, to be followed in four hours after by castor-oil if necessary. The bowels being moved, the quinia is continued in doses of ten grains, to which I add five grains of Dover's powder, until the fever is arrested. When this is effected, the Dover's powder is omitted and the quinia reduced to five grains at a dose, and given for the succeeding twenty-four hours. This course of treatment has seldom failed in my hands to arrest simple remittent fever in from two to three days. Complications

which might require a modification to some extent of this simple treatment are, in my experience at least, exceptions to the rule. A greater error than the belief, still entertained by some, that inflammation contraïndicates the use of quinia could not well exist, and it has contributed vastly to keep up the unfortunate differences which exist among physicians in the management of the several forms of miasmatic fevers. For our part, we never hesitate for a moment to give quinia in full doses in malarial fever, no matter what the complication may be; for we believe it unquestionably to be the only means we possess for arresting the disease with certainty and in a reasonable time. We are of those who believe that there is far less risk in giving quinia at once, and in all cases, than there is in allowing the fever to run its course uncontrolled. We have seen too many cases accompanied by excessive cerebral irritation, convulsions, etc., speedily relieved by quinia alone to leave any room for doubt on this point. In 1857, we visited a boy ten years old, sick for a week with fever. Two attending physicians had abandoned all hope of his recovery. We found him with a high fever, great headache, red conjunctiva, and almost constant delirium, which had existed for several days; he had had several convulsions; he was extremely restless; his eyes were intolerant of light; his tongue was red at the edges and tip, with yellowish white center; urine scanty and high-colored. The history of the case, along with the fact that malarial fevers were very prevalent in the neighborhood at the time, led me to conclude that I had to do with a remittent fever; I thereupon ordered five grains of quinia every four hours, until he had taken five or six doses, applied cold affusions to his head, and sponged the surface with tepid water. The next day the patient was clear of fever, perfectly rational and quiet, and in two days more he was up.

In the fall of 1869, a boy five years old had a chill in the morning. Soon after reäction was established he was taken

with violent convulsions, which continued at intervals throughout the entire day. In the evening, when we saw him for the first time, he was wholly unconscious, and in a state of almost constant convulsion. We directed him to have three grains of quinia and one grain each of calomel and Dover's powder, every three hours, until he got five portions. On the following morning he was convalescent. I might fill this paper with similar cases which have fallen under my notice and were followed by the same gratifying results.

The treatment of pernicious fever is that of the other varieties, except that it is far more active. The prostration during the cold stage is always considerable, often extreme, and admits of no delay. The patient must be tided over it without loss of time. Reäction is best secured by chloroform internally in half-drachm doses, or sulphuric ether in double that quantity, given every twenty or thirty minutes, and small doses of opium. Chloroform has often appeared to me speedily to bring about reäction after alcoholic and all other stimuli had completely failed. I need hardly mention the various external means, etc., for shortening this stage, nor that medicines when out of the question by the mouth, by reason of nausea, and in extreme cases unconsciousness, should be given by the rectum.

The moment reäction sets in quinia should be administered in very large quantities; one drachm and sometimes a drachm and a half of the drug being necessary to prevent a recurrence of the paroxysm. We have found that to combine opium and piperine with the quinia has seemed to add to the efficiency of the latter. Ten grains of quinia, five grains of piperine, and a half grain of opium, given every two or three hours until six or eight doses are taken, is our usual formula. We have seldom known the second paroxysm to recur when the treatment has been such as we recommend; and should it do so, it is always in very mild degree, and susceptible of easy management. Pernicious fever very rarely proves fatal

unless the patient is carried off during the opening paroxysm of the attack, provided it be treated in the manner mentioned.

Dr. J. J. Woodward, U. S. A., in his work on Camp Diseases, has described with great accuracy, under the title of typho-malarial fever, a form of the disease which is exceedingly common in southern Kentucky, and none too well understood by many practitioners, and in itself a most important affection. In the earlier stages of this variety or complication we have found the treatment advised in ordinary remittents sufficient to subdue the malarial element. But quinia has no influence whatever over the typhoid feature in the disease, which runs the course of ordinary typhoid fever, and should be managed in quite the same way.

We are aware that it is contrary to the received opinion on the subject, but our experience has led us irresistibly to the conclusion that the intercurrent congestions, irritations, and even inflammations which occur in marsh fevers should not be regarded as contraïndications to the use of quinia.

There is a peculiar cachexia produced by malarial poisoning, which commonly presents itself in subjects who have had repeated attacks of malarial fever, but may occur in those who, while exposed to the poison, have escaped the development of any febrile phenomena. The most prominent symptom of this condition is a peculiar anæmia. The patient becomes pale, bloodless, with an icterode hue of the skin. Accompanying this condition, and often preceding it, is an enlargement of the spleen, which is sometimes tender on pressure, and almost always the seat of a vague, uneasy feeling, amounting in some cases to actual pain. In the advanced stages of this affection œdema of the lower extremities nearly always appears, or there may be general anasarca with ascites. In the treatment of this condition removal from the malarial to a healthy locality is of the first importance. This, with chalybeate tonics, is usually sufficient for cure. Where, however, this can not be done, iron, quinia,

and the regular and systematic exhibition of aperients are required. The following combination we have found most efficient in such cases:

℞.—Sulphate of iron, sulphate of quinia, of each, ʒj; sulph. of strychnia, gr. j; socotr. aloes, ℈j. Mix. Make into thirty pills, one of which should be taken three times a day.

We have seldom found it necessary to use any other remedy in malarial cachexia, whether attended or not by dropsical effusions. The iron and quinia seldom fail in these cases to reduce the enlarged spleen, in a few weeks, to its normal size. We have seldom found it necessary in these cases to resort to hydragogue-cathartics or diuretics. The iron and quinia, with aperients, seems to fulfill every indication of treatment in these cases. Citrate of iron and quinia has often yielded equally good results. The ferro-cyanuret of iron, which stands high in the estimation of some physicians in chronic malarial poisoning, is in our opinion inferior to either of the preceding. We have used in some obstinate cases, especially those attended by frequent relapses of intermittent fever, in alternation with the iron and quinia, a combination of quinia and arsenic, according to the following prescription, with very salutary effects.

℞.—Quinia sulph., ʒj; liq. potassæ arsenitis, ʒiij; acid sulph. aromat., ʒj; tr. rhei; syrp. zingiber., āā ʒij. M. Signa. A teaspoonful three times a day after meals.

We have purposely abstained from alluding to many of the long list of antiperiodics, so called, for the reason that in our hands a large number of them have proved themselves useless in the marsh fevers which are met with in practice, and because we have, in our opinion, a genuine specific for them in the sulphate of quinine.

Owensboro, Ky.

THE IMMOVABLE APPARATUS IN DISEASES OF THE KNEE-JOINT.

BY R. O. COWLING, M. D.

Demonstrator of Anatomy in the University of Louisville.

The leading points of treatment of diseases of joints are so well established, and statistics are so conclusive as to the good results which follow when they are properly pursued, that we are able to account for the ghastly part which diseases of the knee-joint bear among the causes for amputation only by the fact that the conditions, usually considered necessary for their relief while in a curable stage, are such as can not well be carried out.

I am led to hazard this statement by my own experience in amputation performed for disease of the knee, and after a careful study of the operation, witnessed a large number of times, in the practice of others. I do not think it too much to say that in fully three fourths of the cases which resulted in this unfortunate issue the joint might have been restored to usefulness, or at the worst the limb preserved at the expense of anchylosis, had the principles which are acknowledged to underlie the treatment of the affection been duly observed.

Rest, the earliest suggestion of common sense, forms the basis of all joint therapeutics. It is only as to the best means of obtaining this and the comparative value of subsidiary measures that authorities differ. Prof. Gross's expression is that "rest must be absolute, unconditional, and persistent;" and Mr. Hilton, in his interesting lectures on Rest and Pain, says, in regard to repair, that the "maximum of result is co-equal with the minimum of disturbance."

I do not expect in these remarks to offer anything new in regard to the mere principles of treatment of joint diseases; my object is rather to direct attention to the starch bandage as being the most simple and efficient means for obtaining this unconditional rest and minimum of disturbance. I am the more ready to undertake the task because I believe that, as a dressing in the affection now under consideration, it possesses advantages over any other apparatus. It is superior to any form of splint as a mere mechanical support to the parts; while, by securing both equable pressure and temperature, it not only renders topical applications unnecessary, but accomplishes better than they do the ends for which they are used. In but one writer on diseases of the joints which we have examined is any prominence given to this dressing as a means of obtaining rest. Mr. Athol Johnson, in Holmes's Surgery, extols its use in certain cases, and directs its preparation in the manner in which we apply it; Mr. Barwell does not even allude to it; Mr. Holmes Coote describes an imperfect modification of it; Mr. Erichsen recognizes its value, but does not trust to it alone as a local measure, and advises removal of a portion of the apparatus immediately over the joint that topical applications may be made. Such surgeons as do not trust to recumbency alone to obtain rest of the joint use splints of leather, gutta-percha, etc., and in all their dressings provision is made for direct applications to the parts, and all recommend either forcible or gradual extension of the limb. The starch bandage necessarily makes local medication impossible, and would seem at first sight to prevent further extension; yet, as I shall attempt to show, it really tends to straighten the limb by removing the causes which keep up the flexion.

The explanation of the flexed position into which a limb falls when the joint is inflamed is, first, because the synovial sac is then most capacious, and allows a greater effusion; second, because the articular ends of the bones are then least

in contact, and pain from pressure is thus avoided; third, as expressed by Mr. Hilton, because the nervous supply to the interior of the joint and the muscles which move it being from the same trunks, muscular contraction is thus excited, and the flexors prevail by virtue of their superior force. The practical lesson to be drawn is that the position assumed by the limb is the instinctive effort of nature to obtain rest, and can not be interfered with, violently at least, save at the expense of this. Mr. Holmes Coote says: "Whatever may be the joint, let us, if we wish to preserve the patient's limb, avoid the practice of forcibly setting it right, as it is so called, at once, even if inflammation be acute." Yet a no less authority than Mr. Barwell directs, as a first measure, that the limb be changed from the "unnatural" position in case of the knee to one nearly straight, under chloroform if necessary; and this not only in acute articular osteitis, where a fear of anchylosis, at an inconvenient angle, might be an excuse, but in simple cases of synovitis, for the mere purpose of rest.

It is also a matter of surprise that after his investigations into the practical relations between rest and pain, Mr. Hilton should be an advocate of immediate extension. Whatever may be the case with other joints, it is too obvious that with the knee flexion, unless excessive, secures the posture for rest. It is the position which the limb naturally assumes when we are asleep, or when voluntary muscular force is withdrawn. But agreeing with Mr. Coote that immediate extension is dangerous, we go still further and deny the necessity for extension of any kind. The limb spontaneously returns to its natural position as the causes which produced the flexion are removed. To effect this no measure is comparable, in my opinion, to the starch bandage, properly applied.

Mr. Hilton has called attention to the fact that the cutaneous filaments around the joints spring from the same trunks which supply their interior and the muscles which move them; hence, he says, the power of local medication in these diseases.

So far as this is directed against pain, it will be found that simple protection of these nerves from the atmosphere, which is effected in an admirable manner by the apparatus, is followed by equal if not better results. We have examples of this practice in the treatment of burns and acute articular rheumatism, where the wrapping with cotton-wool so often speedily alleviates the pain; and, however imperfect analogical reasoning may be, direct trial will convince any one of its similar power in the diseases under consideration. But, it may be asked, is it only necessary to relieve pain? What shall take the place of the counter-irritants, the absorbents, and the alteratives which were aimed at the inflammation and its effusions? We answer that, under whatever name it go, all treatment is to secure physiological rest, whose indication within certain limits is ease; with this difference, if we may express ourselves in simile, in one instance we add to the force disturbed, in the other we arrange the weights already in the scale. But, dropping fanciful reasoning and coming to a plain statement of facts, with the arrest of pain other symptoms do subside, effusions are absorbed, inflammation decreases, and flexion gives way.

Aside from this, as a mere splint, as has been observed, the starched apparatus is superior to any other that can be applied. However accurately pasteboard or gutta-percha may be molded, when once hardened they have no power to accommodate themselves to any changes in the limb; and, as Mr. Holmes Coote says, if it does not fit to a nicety, the splint has no power in checking the spasmodic movement which is so distressing to the patient. The thick cotton lining of the starched apparatus, on the other hand, is sufficiently elastic to accommodate itself within certain limits to changes, whether from swelling or shrinking; and by being split and bound afterward, by the roller or loops, this power may be increased as much as may be necessary without the removal of the apparatus, which in itself is a source of serious

disturbance. Again, the firm yet bearable support given by completely encircling the limb, deemed objectionable on account of excluding topical applications, allows the limb to be moved as a whole, and when necessary kept in a dependent position, and permits in many cases the patient to move on crutches in the open air—often necessary to a cure. So obvious an advantage in the immovable apparatus would not be alluded to did not a great number of the profession seem persistently to overlook it. Two eminent practitioners—one in a leading medical center—have told me that they considered the sand-bags the simplest and most effective means of treating simple fractures of the leg. Two months in bed a simple measure! when two days at most are necessary.

We have expressed the opinion, at the beginning of this paper, that the reason why knee-joint diseases were allowed to terminate in disorganization was that the conditions deemed necessary to their relief were such as could not well be carried out. We may add that the means themselves are often imperfect. The movable splints are often deficient in securing rest. Their frequent changes, with renewed applications of topical remedies, not only become extremely irksome, but are sources of serious disturbance. As regards recumbency, few persons will consent to it; children often can not be forced to it; and the poor are not able to avail themselves of it. How far the starched apparatus obviates these difficulties we leave our readers to judge.

It will be observed that we have made no attempt to separate the various diseases of the joint. It is only with their treatment as depending on rest that we have to deal. That there are cases which do not demand the apparatus we can not deny; but whenever mechanical support is required the occasions, we believe, are rare where we should neglect to avail ourselves of this means. Constitutional remedies, directed against the vice that produced the disease, will of course be required.

We have confined ourselves to the knee-joint—which is involved, however, in eighty per cent. of cases—because the apparatus is most effective here. To the ankle and elbow it can also be applied; at the hip and shoulder it has little power.

In the July number of this journal, in a paper on the use of the apparatus in fractures, Prof. D. W. Yandell called attention to its power over pain, spasmodic action, and swelling, and explained his manner of applying it. In the main, the same method has been employed by the writer, who in fact received his first lessons on the importance of the apparatus from that gentleman. The points insisted on are that the limb should be well enveloped in cotton wadding, especially thick on the affected joint; that the apparatus should envelop not only the diseased joint, but as far as possible the muscles which move it; and that there shall be no stinginess in material. Three layers of bandage, with well-saturated splints—a long one behind, and a shorter one at either side of the knee—will remove all doubts as to proper solidity and protection from the atmosphere. Dr. Y. directs the many-tailed bandage, which has the recommendation of economy in material—allowing otherwise useless rags to be employed—and it can also be better saturated with stiffening mixture and more easily applied. It will be found, however, best to put a dry roller immediately over the cotton, which allows proper compression to be made, and avoids the mess which is otherwise likely to follow. The roller, when on, to be well saturated, the splints then applied, and over them the many-tailed bandage. We have found the egg and flour mixture best for stiffening. One word in preparing it: trust the separation of the whites from the yelks to some one experienced in the matter, especially in warm weather. In regard to the early splitting of the bandage, we may say that the precaution is not so necessary as in cases of recent fractures, where swelling is more imminent, but should not be omitted when a return

visit can not be made in reasonable time. When required to be done, the gorget, which is found in most operating cases, and which is not likely to be used for anything else, is by far the most convenient instrument to use. Mr. Tufnell has recommended this instrument—but he uses its handle only—as an ordinary director to protect the parts beneath, cutting down upon its groove with a sharp knife. Our habit has been to put the beak of the gorget under the apparatus at either end, and, pressing outward from the limb, at the same time the cutting edge is directed against the apparatus, which is divided easily, and without risk of injuring the parts. Dr. Yandell uses a modification of Seutin's pliers, which answer an excellent purpose. I ask pardon for these details of minor surgery; but I am certain that many must be ignorant of the manner of applying the apparatus, or its excellences would have been more generally recognized.

Let the apparatus be applied to the limb in the position in which it is found; when dried, let the patient be moved according to his comfort. Let him be urged, in chronic cases, if not to exercise on crutches, at least to sit in the open air. So long as the case progresses favorably, as evinced by absence of or decrease in pain, there need be no curiosity to see how the joint looks. At the end of two or three weeks the apparatus may be removed, that it may be reapplied more closely, and accommodated to the decreased flexion of the limb. Finally, convalescence should be most carefully watched; and, even after we feel justified in laying aside the apparatus, exercise should not be permitted until it is believed the structures are entirely free from disease.

The following cases occurred during my last term as one of the attending surgeons at the Louisville City Marine Hospital, and serve to illustrate the efficiency of the treatment I am now advocating.

Case I. *Syphilitic synovitis.*—Wm. M., aged twenty-four, a German porter, had syphilitic sarcocele, which had necessi-

tated the removal of the testicle. The wound healed readily, but a week after the operation he was attacked with a sharp pain in the right knee. After swelling had taken place the pain left him, and he was able to walk, but with a stiff joint. Fourteen months later he was admitted to the hospital. His knee was greatly swollen and exquisitely painful. The limb was flexed; had not been able to bear his weight on it for some time previous; sleep was difficult; anodynes locally and internally were used; the patient kept in a recumbent position, the knee supported on pillows; iodide of potassium and cod-liver oil ordered; treatment kept up for two weeks without abatement of symptoms. The immovable apparatus was then applied as a local measure; next day the patient reported that pain had left him soon after the apparatus was put on; had slept well for the first time in a month; ordered to keep as much as possible in the open air. In two weeks the apparatus was removed. Pain, swelling, and flexion had entirely disappeared; and, walking as well as ever, he left the hospital. Within a week afterward he enlisted in the army, passing the examination of the surgeon on duty at this place; was sent to Newport Barracks. Engaging in drinking and scuffling on the boat, swelling had returned when he reached the post, and he was rejected. The patient returned to the hospital, and on the same treatment as before symptoms were speedily alleviated. Four weeks after his return, on examination, there is no swelling; pain has disappeared; the limb is straight, but there is some stiffness. The apparatus will be continued until liability of the disease returning is supposed to be removed.

Case II. *Strumous disease of the knee-joint following exposure.*—Peter C., aged fifteen years; teamster. Symptoms had come on after exposure to cold and wet weather: swelling and stiffness in the right knee-joint, but without much pain. Continued walking for a year, when it became so painful and the limb so contracted that he resorted to crutches. Soon after, when he was admitted to the hospital, emaciation was

extreme, the joint enormously swollen and very painful, and the limb contracted to an angle of about one hundred and twenty degrees; knee-cap immovable; organic changes had apparently taken place. Saw the patient with Dr. Singleton, who was then in charge of the ward. We considered it probable that it would become a case for operation. Ordered apparatus, with cod-liver oil and whisky internally. In eight days the bandage was removed on account of looseness; pain had greatly subsided, and swelling somewhat diminished. Treatment continued; patient to be kept in the open air. In three weeks the apparatus was removed to examine the parts. Swelling much reduced, and pain almost gone; could move the limb slightly, which was now nearly straight. Treatment continued. At present date, two months after his entrance into the hospital, he feels no pain whatever; can walk comfortably, but is not allowed to do so without his crutch. When last examined the knee-cap was freely movable. His appetite is good, and he is gaining flesh daily.

CASE III. *Disease of the knee-joint following injury.*—R., an adult German, had disease of the right knee-joint, attributed to injury received some months previous to admission. Great pain, and distortion of joint; especial prominence at inner tuberosity of tibia; flexion of limb at about one hundred and thirty-five degrees. The patient being otherwise in good condition, the cure was trusted to the apparatus above. He passed out of my hands, but reported better at my subsequent visits, and shortly after the completion of my tour of service left the hospital, well enough to walk away.

LOUISVILLE, SEPTEMBER.

A CASE OF CHOLERA INFANTUM, WITH REMARKS.

BY B. M. WIBLE, M. D.

George ——, aged twelve and a half months, who within four weeks had cut four teeth, and had diarrhea for several days, was taken, July 30th, at six P. M., with vomiting and purging of such severity that at six o'clock the next morning (July 31st) he was in collapse. I now saw him for the first time. His feet and hands were cold; features shrunken; countenance anxious; pulse barely perceptible. He exhibited the most imploring desire for water, which I allowed as freely as he would take it. The water taken was quickly ejected from the stomach, and more was then given. The discharges from the bowels were liquid, and still very copious. I gave (a remedy at hand) a tea-spoonful of chalk mixture, containing one third tincture of kino, and repeated it every fifteen minutes, but to see it thrown up almost as soon as swallowed. I then ordered two thirds of a grain of sugar of lead, with one drop of laudanum, to be given every hour as long as the vomiting or purging continued; I also directed, as a drink to be used as a partial substitute for water, a tumbler of ice-water, to which was added the white of one egg, twenty grains of bicarbonate of potassa, and ten grains of common salt. Absolute quiet enjoined.

Half-past eight A. M.: condition same; lead had been retained: treatment continued; he took the drink greedily. Twelve o'clock M.: condition unchanged; continued treatment; at the suggestion of a lady present, I allowed in addition, as a drink, a tea made of parched rice and water. Six P. M.: discharges gradually diminished, being now small, liquid, and dark; during the day had taken about four grains of sugar of lead, twelve drops of laudanum, several

tumblersful of the prepared egg-water, at least one tumblerful of the rice-tea, and a considerable quantity of ice-water besides; slept none; thirst still great; countenance still indicated distress: omitted the lead, and directed a tea-spoonful of the chalk and kino mixture to be given every two hours through the night, with a drop of laudanum when restless.

August 1st, eight A. M. Extremities warmer; pulse perceptible. During the entire night the thirst was insatiable, and the drinks were given freely. Discontinued the chalk and kino, but directed two drops of laudanum if purging returned. Ordered veal broth and the drinks. Six P. M.: had taken about a tea-cupful of veal broth, and freely of drinks, which he occasionally threw up; had several small dark-colored ejections from bowels; found considerable warmth of skin; had slept a little during the day, but was restless and still thirsty: ordered tepid bath, lime-water and milk, and two drops of laudanum when necessary to allay restlessness and control the bowels.

August 2d, ten A. M. Had taken freely of lime-water and milk, but only two drops of laudanum. The bath appeared to soothe him; slept after it. Two large liquid and dark dejections during the night. A moderate allowance of veal broth was allowed; lime-water and milk to be continued; also a drink, *ad libitum*, of syrup and aromatic sulphuric acid—forty drops of the acid in one ounce of simple syrup—a tea-spoonful of this to one fourth of a glass of water.

August 3d. Late in the afternoon of yesterday the child vomited and purged twice copiously, apparently with much pain in the bowels, after which he rested well; he had passed some urine, and toward morning appeared strikingly better. Continued treatment.

August 4th. About ten o'clock last night had one discharge from the bowels, attended with pain, for which he took a tea-spoonful of the chalk and kino mixture, with two drops of laudanum. This morning he appears convalescent.

August 5th. Bowels rather active; child cross. Directed a mixture containing twenty drops of laudanum, three drops of creosote, two scruples of bicarbonate of potassa, and two ounces of mint-water. Dose, a tea-spoonful after each excessive discharge from the bowels.

An occasional dose of the above was required for several days. To-day, August 30th, the patient is quite well.

I regard this case as one which illustrates the value of the free allowance of drinks. The thirst—in this case the most urgent I have seen — seemed to indicate that the system needed fluids. The blood no doubt had lost much of its aqueous element by the copious watery purging; and the thirst was a pleading of nature for its supply. The drinks may have also tended to soothe the irritable mucous membrane of the stomach. It is true that the greater portion of the fluids taken were vomited up, but a part must have been carried into the circulation. The potash, table-salt, and albumen were added to the drink for the purpose of furnishing an artificial serum for absorption into the blood. I doubt the utility of the albumen, as it requires digestion before it can enter the circulation.

The acetate of lead served to lessen the vomiting and purging, and thereby prevent the further loss of the watery element of the blood. When I first saw this case it was exceedingly unpromising, and I believe it was rescued from immediate death by the astringent action of the sugar of lead. In the early part of the treatment I doubt if the opium had any effect. The small quantity given, mixed with so much fluid in the stomach, could hardly have been absorbed into the circulation in any appreciable quantity.

Here is one case of recovery at least without a particle of calomel or any mercurial whatever. There was no indication for calomel in this case. When I first saw it the vomiting and purging were so active that I did not choose to add fuel to the fire by giving a purgative; and until the

patient was quite convalescent the bowels had a tendency to too great activity; therefore at no time could I find the shadow of an excuse for its use. On the contrary, if I had given small doses of calomel in this case, with the unreasonable view of exciting biliary secretion, I should only have increased the tendency to purge, interfered with nutrition, and in all probability have destroyed the patient. Under the influence of what I believe to be fallacious theories, a large number of the physicians of this western country have become wedded to the use of calomel, in this and many other diseases, so that they feel they neglect a duty if they fail to use it. Discarding all theory, my own experience has taught me that calomel, given as an alterative, or as an agent to excite the secretions, in the usual parlance, is one of the causes of the great fatality of cholera infantum. In the opinion that calomel is not needed in the treatment of the disease, I am supported by Tanner, Smith, J. Forsyth Meigs, and by nearly all modern writers on the subject. Purgatives are often required in the treatment of cases of summer-complaint, and then calomel may answer the purpose as well as castor-oil or rhubarb.

In protracted cases the success of treatment will greatly depend upon care in the diet. Indigestion is an important feature of the disease. All crude articles of diet therefore should be excluded. Starchy food is not well borne by very young children, nor in those a year and more old is it always digestible. Those who suffer some lesion of the mucous membrane of the bowels will often crave certain articles of food. Generally such cravings indicate a return of the powers of digestion. The physician should not allow the gratification of such craving unless it be for food digestible and wholesome. The system is needing articles of nutriment which will restore the quantity and quality of the blood to the standard of health. Too often nurses will allow the patient forbidden articles of food because these are desired. The child recovers, and the

physician is afterward informed that the recovery of his patient was due to such diet; but he should not be thus misled. He is not apt to learn the disastrous effects of forbidden articles. In the present state of our knowledge I know we can not appreciate the peculiarities of the digestive powers, nor of the wants of the organism for certain articles of nutrition; but such ignorance should not tempt us to run into the absurdity of allowing articles of food which pass the stomach unchanged, gripe the bowels, increase the diarrhea, and still further tend to exhaust the patient.

LOUISVILLE, SEPTEMBER.

A CASE OF OVARIOTOMY.

BY DAVID W. YANDELL, M. D.

The following is one of six cases of ovariotomy performed in Louisville, within the last two years, by different medical men, five of which, from one cause and another, proved fatal. It was my intention to collect notes of all these cases, and embody their leading features in a paper for this journal. But reports of the most cruel character as to the nature of the tumor in the case which I am about to report having been circulated by the physicians who saw the young lady, at her home in Texas, when the abdominal enlargement was first observed, I am requested by the lady herself to record her case here, and singly. I gladly do so as an act of justice to a brave and Christian woman; and, that additional weight may be given to my testimony, I give the names of the distinguished gentlemen who witnessed the operation. The circumstances connected with the case will explain the style in which it is written.

Miss Mary A. Phelps, aged twenty-two, an orphan, lived with her uncle, Capt. A. Harwood, at Eagle Ford, Dallas County, Texas. Her constitution was good, and her health excellent. In February, 1866, her menses were suppressed, to return in the following August and September, when they again disappeared. Some abdominal fullness was now noticed. Medical advice was sought to restore the catamenia. The abdominal enlargement increased. A considerable tumor was detected in the left side. Miss P. was pronounced by her physicians to be pregnant. Time went on, and the abdomen increased enormously in size. In April, 1869, the patient came from her home in Texas and placed herself under my care. The day after she reached Louisville, my friend Prof. Mussey, of Cincinnati, then on a visit to this city, saw the case with me; he pronounced it at once a multilocular ovarian tumor. My father, Dr. L. P. Yandell, and the late lamented Prof. Powell concurred in this opinion; Prof. James M. Bush, of Lexington, and Prof. Henry Miller both confirmed it. Miss Phelps was removed from the house of her aunt, Mrs. Chamberlain, to St. Joseph's Infirmary, where, on the 10th of May, I operated on her, in the presence of Profs. Miller, Powell, and Rogers, and Drs. James M. Keller, Newman, Scott, Coleman Rogers, Cowling, Blackburn, and Singleton, all of this city, and Professors Palmer, of Detroit, and Parvin, of Indianapolis. Prof. Miller, himself a veteran ovariotomist, kindly gave me his skillful assistance. All necessary precautions as to the temperature and moisture of the air of the room, etc., having been taken, chloroform was administered by Prof. Rogers. The catheter introduced, and the bladder emptied, the patient was pronounced ready for the knife. I made an incision in the middle line of the abdominal walls, from the umbilicus to just above the pubic symphysis. Profs. Powell and Miller separated the edges of the wound. The tissues immediately over the most prominent part of the tumor were so thinned that the cyst-wall was laid bare by almost the first stroke

of the knife, without the use of a director. There was no hemorrhage. My hand, carried in upon the anterior wall of the tumor, and passed as far as possible around it, met with some adhesions on its upper and left side only. These were carefully but readily broken down by the fingers. Finding the *short* incision insufficient to allow the extraction of the tumor, without lessening its size, I thrust a large trocar into the protruding cyst and evacuated a considerable quantity of yellowish serum. The tumor was but little diminished in bulk. I plunged the trocar into other cysts, through the walls of the first, and thus occupied some time in these efforts to drain the tumor. The contents of some of the cysts were very gelatinous; too solid to flow through the canula. I tore with my hand through the walls of the cysts, breaking them down in every direction. The tumor still proved too large to be brought out through the original cut. I extended the incision almost to the ensiform cartilage. Drs. Miller and Powell lifted the tumor out with considerable effort. I transfixed the pedicle, which was of medium length, with a needle armed with strong whip-cord, and tying this securely cut the tumor away. It weighed twenty pounds; and Prof. Miller, who made a rough estimate of the amount of fluid evacuated from the several cysts, thought the tumor would have weighed in its original state between thirty and forty pounds. Its greatest length was twenty-nine inches; its breadth twenty-seven inches; its thickness seventeen inches. The wound was closed by silver sutures and adhesive strips; the ends of the ligature were brought out at its lower margin; the whole was carbolized, and the patient placed in bed. She got an opiate and a soup. On the third day her temperature rose to one hundred and two degrees. I made slight traction upon the ends of the ligature, which was followed by the discharge of a table-spoonful of purulent matter. Twenty-four hours after, her temperature fell to ninety-nine degrees; convalescence proceeded without interruption. On the thirteenth

day the sutures were removed; union was complete, except at the lower margin of the wound, which was occupied by the pedicle. The ligatures yielded to slight traction, and came away on the fifty-fifth day. In eight weeks after the operation the catamenia were restored; they returned at the expiration of three weeks, and have continued regularly at that interval; previous to the development of the tumor they showed themselves every four weeks.

Miss Phelps returned to her friends the following fall, and in letters recently received from her says her health has been uninterruptedly good.

LOUISVILLE, SEPTEMBER.

Reviews.

Lectures on Clinical Medicine. By A. TROUSSEAU, late Professor of Clinical Medicine, Paris, etc. Vol. III. Translated by JOHN ROSE CORMACK, M. D., F. R. S. E., etc. The New Sydenham Society, London, 1870.

PLEURISY.—*Paracentesis of the chest.* A paper which appeared in a recent number of this journal from the pen of Dr. Todd, to which Dr. Coleman Rogers added a summary of the indications for thoracentesis, the manner in which it should be performed, etc., would seem to render further notice of the subject unnecessary at this time. But paracentesis of the chest appears to us to have been practiced by so few physicians, at least in this part of America, that we believe we can do our readers no greater service than by giving them M. Trousseau's views concerning its uses. Professor T. contributed more perhaps than any other continental physician to its introduction into general practice, and has gone further than any in pointing out the varying conditions which render it necessary.

In the chapter on acute pleurisy he counsels that an inflammation of the pleura should never be allowed to run on too long, "lest an effusion which was originally serous should become purulent;" and adds: "There are also pleurisies which are purulent from the first;" "in proportion to its duration, pleurisy becomes less and less curable;" "the quantity of the effusion regulates the time at which paracentesis is indicated;" "the general symptoms and oppression of breathing are fallacious indications;" the only trustworthy signs are those furnished by auscultation and percussion; the latter partic-

ularly furnishes the most reliable indications as to the "opportune moment for thoracentesis;" "paracentesis ought to be performed with the least possible delay when the effusion completely fills the serous cavity;" "if patients thus situated are not operated on and yet survive, they are exposed to consecutive dangers almost as serious as those they have gone through."

The instruments used by Professor T. in paracentesis are a bistoury or lancet—he prefers the latter—for dividing the skin, and a common trocar. In order to avoid the entrance of air into the pleural cavity—although this is a thing of small moment even in hydrothorax, and altogether immaterial in chronic empyema—he converts one extremity of the canula into a kind of membranous valve by fastening over it a bit of wet gold-beater's skin or bladder, which, if properly done, he says effectually prevents the admission of air. He prefers to reach the pleural cavity through the sixth or seventh intercostal space, from above downward, at about half to three fourths of an inch external to the outer edge of the pectoralis major. Parallelism, or a want of it, between the internal and external openings is not of material consequence; though in acute purulent effusions treated by simple puncture, and where at the end of some days the wound usually reöpens spontaneously, if the opening be too subcutaneous, the pus will incline to burrow beneath the integuments, and give rise to troublesome fistulæ. Our author thinks thoracentesis less dangerous than abdominal paracentesis. His practice is to withdraw the entire effusion at a single sitting. When, in cases of genuine effusion, no fluid follows the introduction of the trocar, it is in consequence of the instrument not having perforated the layers of false membrane which accumulate on the pleura in the earlier period of the attack, or because the patient breathes only with the lung of the healthy side, and hence fails to distend the diseased side sufficiently. The first of these difficulties is overcome by tearing through

the obstruction by means of a probe or crotchet-needle passed along the canula, or making a new puncture in another intercostal space. The second is corrected by having the patient cough, or make full inspiration, or strain as if at stool. A single tapping generally suffices in simple acute hydrothorax; and where the fluid is reproduced it is never to the extent of the original effusion; generally it is absorbed. To expedite the work of absorption our author gives digitalis, and paints the affected side with the tincture of iodine, which as a resolvent he considers equal to blisters. So much for serous effusions in the pleura.

We come now to "suppurative pleurisy, which is essentially a serious disease, and indeed generally proves fatal, the cases in which recovery takes place through the unaided efforts of nature being quite exceptional." The same may be said where "the disease is purulent from the beginning, and of simple pleurisy which becomes purulent." In operating for *purulent effusion*, you puncture directly with a trocar, empty the fluid, and dress as in simple hydrothorax. It sometimes though rarely happens "that there is no new effusion; or the effusion may recur and be evacuated by the bronchial tubes, which is a still more unusual occurrence, and one which relatively is very favorable." In almost "every case, however, the purulent fluid reäccumulates," and finds issue through the original wound. In rare instances the "pus escapes only in small quantities, the chest becomes flattened, at the same time the lung resumes its place, and the cure is accomplished without the occurrence of pneumothorax." The rule, however, is that the pus is discharged in very large quantity; "this being replaced by air entering the chest, we have hydro-pneumothorax, a condition which eventually necessitates surgical interference." In such cases the wound is enlarged with the bistoury, that a larger canula may be introduced, which, after being bent so as not to injure the lung as it expands, and its rim covered with a rubber ring to prevent excoriation of

the skin, is allowed to remain. It should fit the opening accurately. Here "the introduction of air into the pleural cavity ceases to be a cause of dread," as in order to alter the pyogenic surfaces our author advises the use of injections of iodine or some other irritant fluid. It has already been said that in serous effusion the entire mass of fluid should be emptied at once. In empyema, on the other hand, a portion only of the accumulation is allowed to escape. The following solution is then thrown in through the canula: tincture (Fr.) of iodine, fifty parts; iodide of potassium, two parts; distilled water, one hundred parts: to which is added an equal quantity of tepid water. The patient is directed to shift his trunk in such way as to carry the injection to all parts of the pleural surfaces. A portion of the fluid being now allowed to flow out in order to prevent toxic effects from the iodine, the canula is closed, and the chest encircled with broad strips of adhesive plaster; subsequently the canula is opened daily to allow a part of the matter to escape, and the injections are repeated, augmenting or diminishing their size and strength according to the tendency of the pleural cavity to contract, and "to the greater or less fetor of the fluid which it contains, and its greater approximation to the character of laudable pus. The injection is then repeated only once in two, three, or four days," though the canula should still be opened at least once in every twenty-four hours. "It may be necessary to continue this treatment for a long time;" in children our author has kept it up for six months. "If there is one species of purulent pleurisy which seems to baffle all the efforts of medicine, it is that to which puerperal women are subject." Death seems to be the "almost inevitable issue" of such cases; yet even in these thoracentesis affords a chance of recovery.

Traumatic effusion of blood into the pleura—Thoracentesis. The most interesting facts in this chapter were obtained by experiments, made many years ago by our author, on horses wounded in the chest, for the purpose of studying the subject.

Where the wounds in these animals divided the larger vessels of the lungs, profuse hemorrhage simultaneously into the pleura and the bronchial tubes speedily produced death. Where the injured vessels were of smaller size, the blood effused into the pleura and bronchi, compressed the lung in such manner that the hemorrhage soon ceased. At the autopsies made forty-eight or seventy-two hours after the injury, the "lips of the wound of the lung were inflamed, and the pleura surrounding it, to the extent of several centimeters, participated in the inflammation ; a plastic exudation was then thrown out, which formed adhesions with the serous membrane, and became intimately amalgamated with the fibrinous mass occupying the course of the wound, to which it had become closely adherent. The wound was in this way obliterated throughout its entire course by a fibrinous clot, and its lips were covered by a fibrinous disk, adherent to the pleura, to the lips of the wound, and to the plugging fibrinous clot. It bore a considerable resemblance to a large fibrinous nail, the stem occupying the course taken by the wounding instrument, and the head being flattened upon the lung to which it closely adhered."

Blood escaping into the pleura coagulates almost immediately, and is absorbed with astonishing rapidity. When it is unaccompanied by the presence of air it is comparatively innocuous, "scarcely irritating the serous membrane more than food does the stomach, or than urine irritates the bladder." When, however, air finds its way, along with the blood, into the pleural sac, and we have pneumothorax added to the hæmothorax, the blood acts as a foreign body—it putrifies; and in the horses experimented upon by M. Trousseau the poor creatures were quickly overwhelmed by pleurisy. It follows from the above, first, that to puncture the chest in hæmothorax is not only to lose the invaluable assistance afforded by the compression exercised by the mass of effused blood upon the extremities of the bleeding vessels, but also

to prevent the formation of the "plugging" clot described by our author; second, that the violent coughing almost invariably excited by thoracentesis "will be peculiarly apt to increase the hemorrhage, and break down the plugging clot as fast as it forms;" third, that the exceeding rapidity with which the blood coagulates makes paracentesis for its removal "as senseless as it is useless;" fourth, it is "impossible to withdraw the blood, on account of its coagulation, though the opening were infinitely larger than is generally made;" fifth, to attempt to do so is "at least injurious, and is frequently fatal." Our author cites the pleurisies which carried off the horses, in his experiments, when air was admitted into the cavity of the chest, as additional proof of the danger of thoracentesis in hæmothorax. "Absolute rest and very low diet are probably the best means of promoting absorption in hæmothorax." The fearful inflammation which follows traumatic hæmo-pneumothorax demands the same treatment recommended in empyema and in hydro-pneumothorax, practiced with the least possible delay.

Pulmonary abscess. Except as the result of metastasis or tubercular vomicæ, pulmonary abscess is very rarely met with. It is most frequent in children, as a result of lobular pneumonia. There is nothing special in its treatment, which, before the abscess is detected, is that of ordinary pneumonia. After the abscess is discovered remedies avail nothing, as the affection is situated beyond their reach.

Treatment of pneumonia. Frank inflammatory pneumonia tends, as a general rule, to spontaneous recovery. In the cases which do well there is a noticeable decline in all the symptoms between the ninth and eleventh days. The same improvement does not take place, however, in the physical phenomena, which remain often in full development for days after the rational symptoms denote convalescence. Our author asks, ought the treatment of pneumonia "to be expectant because recovery takes place spontaneously in a certain number

of cases?" He answers in the negative, and says, whenever called to a patient suffering from pure and uncomplicated pneumonia, he loses "no time in resorting to the antiphlogistic treatment." But antiphlogistics with Prof. T. are limited to three preparations of antimony: emetic tartar, kermes, and the white oxide of antimony. He prefers the kermes for adults, and the white oxide in children. Tartar-emetic he seldom uses. He believes experience has taught him that venesection "seldom shortens the duration of the disease, and frequently retards complete return to health by weakening the patient." Yet he would not be classed among the detractors of bleeding, and denies altogether "that it brings in its train the disastrous consequences ascribed to it, provided it be practiced with due moderation." But in the "peculiar medical constitutions," as he puts it, "through which we have passed in recent years," he has not found venesection necessary nor even useful. "*In respect of the present time*," recourse to the lancet is unnecessary, "just as in the past there have been medical constitutions which required it, and as there may be others also in the future demanding it." The only cases in which he allows himself to open a vein are those of great general plethora, "threatening to complicate the progress of the pneumonia." Here he sometimes, though most rarely, practices a single and not very large bleeding, and this even he has found very seldom necessary to repeat. When the stitch in the side is excessive, he applies cups, wet or dry, as the case may be, to the seat of the pain, or injects a solution of atropine under the skin. He usually combines a little digitalis with the kermes, as in the following, which seems to be his favorite prescription: Pills made with castile soap, kermes, and extract of digitalis, each of which should contain one and a half grains of kermes, and the sixth of a grain of the extract of digitalis. Of these from ten to twenty-five are taken during the day at stated intervals. Should they produce vomiting or diarrhea, he gives a drop of Sydenham's laudanum with each pill, until

tolerance of the kermes is established. This treatment is continued throughout the whole of the acute stage of the disease; when the febrile symptoms yield the kermes is given in diminished doses, but is not discontinued altogether, until convalescence is fully established. He administers the antimony in the form of pills, in order to avoid the pustular inflammation of the mouth and throat, which is apt to follow the prolonged use of this substance when taken in solution.

As to blisters, he thinks them hurtful if used when the disease is at its height, and useless at a later period.

To sum up, M. Trousseau's antiphlogistic treatment, indeed apparently his only treatment, of simple pneumonia consists in an occasional single small bleeding in very stout persons of plethoric habit; a mild, local abstraction of blood, when the stitch in the side is very severe; a little digitalis; and the balance of the work is left to antimony. Antimony first, last, and all the time, administered in varying but always in large doses, is the one remedy on which he relies in simple uncomplicated pneumonia.

TO BE CONTINUED.

Transactions of the Indiana State Medical Society, 1870.

The annual meeting of this society was held in Indianapolis on the 17th and 18th of May, 1870. The meeting was largely attended, and an earnest, attentive devotion to professional work seems to have pervaded the assembly throughout its sessions.

"Man's Power over Nature and Medicines as means by which he aids and controls the Laws of Life" is the title of President Sutton's address, with which the volume opens. It is an effort to point out the superior position of man in the scale of created beings; to assert his ability to control nature's operations within certain bounds; to declare

the medical profession to occupy a little higher position than any other class of mankind; and to rebuke those audacious professional skeptics who allow themselves to doubt that medicines can do all that is claimed for them, or question the infallibility of doctors. With the first proposition all will unite, and the second no one can justly dispute. The third is one of those comprehensive, vainglorious self-laudations that is common to doctors and every other profession or calling. It is none the less an error in fact, and a bit of bad taste it were better to suppress. Doctors, in the aggregate, are an average section of mankind—just as good as so many preachers—no better than so many navvies. They come into the profession by taste, persuasion, or accident, and their training for its active duties makes them neither better men nor worse than the training of other men for other duties. Dr. Sutton's sense of propriety and love of truth would be shocked at the idea that he could consent to claim for himself individually a superiority to other men of other industries around him; that they must look up to him as the light of the present and reverence him as the hope of the future; and yet he does not hesitate to ask this indirectly for the profession at large, nearly all whose members are his inferiors.

In relation to our fourth point in the presidential address, Dr. Sutton declares that we "know that there is a tendency at the present time, not only with the public at large, but even by members of our own profession, to distrust the power and undervalue the efficacy of the principal means by which we control the laws of life." If he means by this a disinclination to continue the more perturbating use of say venesection, blisters, calomel, jalap, tartar-emetic, and the like in the management of morbid action, then he is right, and all the world should say amen. But if he desires to convey the idea that the world is losing its faith in medicine generally he is greatly mistaken; for the multiplication of doctors of all

styles, sexes, and colors, the endless variety of new drugs, with long certificates of value and artistic labels, that line and ornament the shelves of apothecary-shops, in addition to the great broods of fancy preparations issued in aggravating quantities from the laboratories of our so-called regular pharmaceutical manufactories, are so many irrefragable testimonies to the contrary. We think there is no hazard of error in asserting that the present calendar year will have more doctoring done in it and witness the administration of more medicine than any other since the world began. Looking at the world comprehensively, we believe that the consumption of medicine is enormous, is increasing, and ought to be diminished.

Physicians may be divided into three classes. First and largest, those whose reverence for the past forbids them to dispute any of its teachings, and who regard all changes in practice as arising out of change in the type of disease or the circumstances of the case, and never out of error in our ancestors. The third and smallest class are those who look upon the present science and practice of medicine as a fallacy and a delusion, resting on the presumptuous ignorance of the past and having but little better prospects for the future. The remaining class, intermediate between the others in numbers, are the influential men of the profession and the hope of the ailing world. They look on the teachings of the past as beaming with great wisdom in the midst of abounding error. In the present, they make a wide difference in the deference they pay to things asserted and to things proven; and even feeling and acknowledging that things seemingly proven to-day may turn out to-morrow to be phantom structures built on imaginary facts. Dr. Sutton ignores the existence of the middle class, and magnifies the third numerically, and amplifies its importance beyond the pale of reality.

Tempered by these considerations, we commend the address of President Sutton as the effort of a manly, earnest

member of the profession, looking to improvement in himself, and seeking to excite in his brethren higher aims, nobler aspirations, and fruitful activity.

Next the president's address comes an "Essay on the Treatment of Puerperal Hemorrhage," by Professor Mears, of Indianapolis. Its author is a veteran practitioner, an energetic man, and a close observer. His paper is pointed, practical, and plain, summing up the experience and teachings of the profession, as verified by himself in most forms of puerperal hemorrhage—or hemorrhage of pregnancy perhaps one had better say, for the view covers the whole duration of gestation—and making salient some points wherein he has an individual treatment. For example, in his management of placenta prævia, we quote: "My treatment then, instead of detaching the placenta yet adherent, according to Professor Simpson, or only partially separating if the attachment extend above the lower zone, upon the theory of Dr. Barnes, is to proceed at once to clear away the coagula, introduce to the bleeding surface a small sponge saturated with the persulphate of iron, following with a firm tampon. I now administer ergot freely and await events, with the assurance some practice has afforded me that I should certainly save the mother, and very probably the child—achievements which my experience with other methods of treatment had by no means rendered probable." Prof. Mears has unwavering faith in ergot as an ecbolic, though the discussion of his paper brought out the fact that a number of his auditors were doubters in this behalf. The essay opens with this sentence: "Hemorrhage is acknowledged to be one of those most dangerous accidents to which the puerperal state is liable, whether it is in that form which precedes, accompanies, or follows labor." Certainly it is "*one* of the most dangerous accidents," but still it does not approach the fatality of puerperal fever, which, according to Churchill's tables, is nearly fifty per cent., while hemorrhage is about sixteen per cent. of those attacked; and in one hundred and

sixty-three thousand seven hundred and thirty-eight deliveries, the rate of attack was one in one hundred and twenty-two. Almost every practitioner of much experience has encountered alarming symptoms from puerperal hemorrhage, but many an old doctor has never witnessed a death by it.

"The Utility of Ergot in facilitating Labor," by E. Mendenhall, M. D., of Zionville, is the third paper of the series. It is a summary of the opinions, pro and con, of many authors regarding the value of ergot in parturition; the writer's emphatic declaration of reliance on its virtues, and his plea for its more frequent use in cases where many judicious accoucheurs would prescribe "*wait.*"

Dr. F. J. Van Vorhis, of Stockwell, read a paper, entitled "Psychical Influence upon the Organization of Structures," wherein he advocated the idea that mind is not the product of matter, but exists independently of it; though it can make its manifestations only through matter. Dr. V. furthermore thinks that the mind exerts an influence on the structures and functions of the human frame of great interest, and refers to the impression of the mother's mental state on the physical organism of the fetus in her womb. The paper is short, but shows an earnest gleaner after truth in a field where the scant twilight of science enables the most devoted explorer to see but dimly.

The next paper is the narrative of a case of "Reduction of Dislocation of the Hip," by Dr. H. V. Passage, of Peru, who claims some originality in the manipulations by which he lifted the head of the bone into its socket from behind the acetabulum.

"Reduction of Dislocation of the Hip—Principles of the Flexion Method"—is the title of an essay presented by Dr. R. E. Haughton, of Richmond, who takes exception to Bigelow's claim to originality in his teachings about the Y ligament. Dr. H. also objects to some of the doctrines of Bigelow; shows us that some other surgeons have been

mistaken; and demonstrates a good many other things connected with the hip-joint by the aid of drawings, which are presented in two wood-cuts in the volume under notice.

Dr. G. V. Woolen, of Indianapolis, furnishes a paper on "Syphilis — its Pathology and Treatment." He states that "it need hardly be said, as prefatory to this article, that it will be but a recapitulation briefly of some of the doctrines of the modern school of syphilography." The work the author thus designates for himself he has done in a very sensible and satisfactory way. In the administration of mercury, Dr. W. gives preference to the method by fumigation, and sustains his preference by arguments which seem to us quite fallacious, as do all others we have seen to the same end. But our opposition to fumigation is not entitled to much respect, for we have never given it a trial; having been satisfied with the simpler and, so far, apparently efficient method of administration by the stomach.

"Disease of the Skull—Four Operations for Removal"—by Dr. Wilson, of Carthage, is a rather prolix and diffuse history of the removal of the anterior part of the skull, from the orbits to the apex of the head, at four different operations, executed between March, 1866, and December, 1869, for supposed syphilitic degeneration of the bone. Four wood-cuts make the situation and extent of the operations entirely plain. The case is one of great interest and large instruction, showing what extensive and repeated operations may be done by a careful surgeon, to the eminent relief of suffering and the evident prolongation of life, the patient still surviving, with new bone over the entire space from which the old and diseased bone was removed.

Dr. C. E. Wright's paper on "Purulent Aural Catarrh" is another resumé of the present condition of an important but often neglected branch of practical surgery. Dr. W. epitomizes the views of pathology and practice of recent authorities, and adds something from his own experience.

The next communication is a note from Dr. J. A. Comingor, of Indianapolis, stating that he was appointed to report on the "Pathognomonic Signs of Nephritis," and adds that he "is acquainted with no pathognomonic signs of the disease that are not contained in the text-books upon the subject; hence it is deemed inexpedient to consume the time of this society, or encumber the transactions with knowledge that every physician's library should contain." With due deference to Dr. C., we think he is mistaken. We fancy that he ought to have hunted up from the various books just what the society asked for, and to have given it to them in his clearest and most concise language. Doubtless many of the members would have been refreshed by the recital, and the discussion that would have followed might have brought out great stores of latent knowledge from the members, that the Doctor's failure to comprehend the situation cut off all opportunity of presenting.

Dr. J. R. Weist, of Richmond, from a committee, made a "Report on the Board of Public Charities;" closing with a recommendation that the society appoint a committee to petition the legislature to enact a law providing for a state board of public charities, similar to those now existing in Massachusetts, Ohio, Illinois, etc.; which recommendation was followed by the society.

Dr. V. Kersey, of Richmond, on behalf of a committee, reported on "Medical Rank in the United States Navy," concluding with this resolution:

> *Resolved*, that in the judgment of this society it would be right for physicians—and we hereby recommend them, one and all—to decline service in the United States Navy till Congress shall, by legislation, secure to the medical staff rank, right, privileges, immunities, emoluments, and honors, equal to any of the most enlightened and civilized nations of the world.

This, we think, points out the exact platform whereon the medical fraternity ought to stand in this behalf; and the

Indiana State Medical Society did well in committing itself to this sentiment by adopting the resolution, and ordering a copy sent to the American Medical Association.

Here ends the papers in the transactions; and the pamphlet is concluded by the minutes of proceedings, the laws governing, and a list of the members of the society.

This volume of the transactions is not large—one hundred and sixty-six pages—but it has good material, is handsomely printed on tinted paper, embellished with a cut of the society's new seal, and, barring some inefficiency in proof-reading and some carelessness in the make-up of the minutes, the pamphlet is equal to the best, if not superior to any of its predecessors.

J. F. H.

Medical Diagnosis, with Special Reference to Practical Medicine. A Guide to the Knowledge and Discrimination of Diseases. By J. M. Da Costa, M. D., Lecturer on Clinical Medicine, and Physician to the Pennsylvania Hospital, etc. Illustrated with engravings on wood. Third edition, revised. Philadelphia: J. B. Lippincott & Co. 1870.

Dr. Da Costa holds an enviable rank among the physicians of this country; he is to medicine what Greenleaf was to the law or Thornwell to theology. But he not only possesses that highest attribute of the mind—the capacity to weigh evidence correctly—but in a marvelous degree the power to elicit it. The bent of such an intellect as this turned naturally on diagnosis, and as a clinical lecturer his aim is chiefly directed in defining the precise nature and limit of disease. The book before us is the work of the first diagnostician in America. If it fail to reach the position we have given to the physician and the lecturer, it is because the generalities inseparably connected with the subject destroy, in a measure, the vigor which marked his search in individual cases; yet it is the best book on diagnosis extant, and the call so soon for a

third edition shows how well the profession generally agrees with us in our estimation of it.

Messrs. Lippincott & Co. have issued the work in their usual beautiful style.

A Hand-book of Operative Surgery. By JOHN H. PACKARD, M. D., one of the Surgeons of the Episcopal Hospital; author of a Manual on Minor Surgery, etc. With fifty-four steel engravings, and numerous illustrations on wood. Philadelphia: J. B. Lippincott & Co.

We perfectly agree with the modest preface of this book, that he who consults this volume "will find in it at least one good method, practically described, for every surgical operation in general use at the present day." Discarding all attempts at filling pages by describing multiplicity of methods, to be rejected, at best, in an "appreciation," the author gives only what the profession and practical experience have stamped as the best, and he gives this concisely and clearly. The work is profusely illustrated with engravings, which in the main are uncommonly correct. The operations are nearly all simplified; many in a wonderful degree. As a whole, it is an excellent book from a superior surgeon, and his brethren, we are sure, will give it a hearty welcome.

The publishers have done their part of the work in their best manner.

Clinic of the Month.

THE TREATMENT OF ENLARGED LYMPHATIC GLANDS.—Mr. Furneaux Jordan read a paper on this subject before one of the sections of the British Medical Association. The numerous modes of treating enlarged glands are remarkable chiefly for their want of success. The method now proposed, if carefully carried out, the author had never known to fail. The ordinary enlargement of lymphatic glands is due to inflammatory action. By far the most efficient remedy in inflammation of any organ is counter-irritation, if only it be established in the *proper locality* and to a proper extent. A blister will cure bursitis when nothing else will, and inflammation of a bursa does not differ from other inflammations. In enlarged glands, as in abscess, carbuncle, boils, and erysipelas, the best locality for counter-irritation is *not over* the inflammation, but around it or adjacent to it; in short, in an independent vascular region. In enlarged cervical glands, a large patch of iodine irritation at the back of the neck, which may be prolonged below the glands, will certainly prove successful in a short time. A shot-bag, as heavy as can be tolerated, should be applied over the glands, at intervals during the day; the patient being, for this purpose, in the horizontal posture. (Lancet.)

HYGIENIC TREATMENT OF DISEASE.—"Side by side with the use of medicine, and not second to it, is the so-called hygienic treatment of disease—the study and regulation of the vital forces. The influence that the physician exercises over the mind, and through the mind over the body; the soothing

or the stimulation of the nervous power; the calming of exaltation or the stirring up of apathy; the quieting of the over-busy brain or the spurring of the flagging will; the repose of over-used powers or the awakening of suspended vital functions; the subduing of the over-sensitive skin or the stimulating of it where wan, muddy, and lifeless; the limiting of supplies to the over-fed frame or the repair of the wasted body by the proper kinds of food and stimulants; the bringing into play, and so again into existence, muscle that had become wasted and paralyzed by disease: these are among the aims the physician seeks to accomplish, and these are among the means which he seeks to employ irrespectively, but by no means necessarily, without the use of medicine: these are among the agencies which you hold in your power in the treatment of disease, and that you, each of you, exercise daily in coping with the various forms of malady, of ailment, and of constitution." (Extract from the Address in Medicine, by Dr. Francis Gibson, at the last meeting of the British Medical Association. *Ibid.*)

Dangers of Carbuncles and Furuncles of the Face.—An elaborate monograph entitled "Researches upon the causes of the special danger of Carbuncles and Furuncles of the Face," by J. L. Reverdin, presents the following conclusions: 1. Carbuncle and furuncle of the face present a special gravity. 2. This gravity is due to the ready complication of phlebitis. 3. Facial phlebitis causes death either by extension to the sinuses of the dura-mater, or in becoming the source of purulent infection. 4. Carbuncle of the lips has nothing in common with malignant pustule. 5. The invasion of the orbit by phlebitis, as shown by exophthalmia, is an almost certain indication of invasion of the sinuses. 6. Incision made as quickly and as freely as possible seems to be the best means to prevent and sometimes to arrest the phlebitic complication. *(Archives Générales.)*

DIFFERENT METHODS OF ELECTRIZATION.—The following is a *resumé* of the first part of an article by Dr. Duchenne entitled "Critical examination of different methods of Electrization:" 1. Localized faradization is an excellent and the best method of electrization in the treatment of atrophic paralysis, and chiefly of paralysis consecutive to traumatic lesions of mixed nerves. 2. Continuous currents and currents of induction, in equivalent doses, exercise an identical action upon constricting vaso-motors. 3. The therapeutic action of localized faradization is exercised from the periphery upon nutrition; first, in augmenting the tonic force of vascular constrictors by excitation of the ramifications of the sympathetic which accompany the arterioles; second, in rendering more active local circulation by excitation of vaso-dilators, of which the existence, demonstrated by experiment if not by anatomy, is moreover necessary as a moderator of constricting vaso-motors; third, in exciting the nerves directly concerned in nutrition, whatever the theory or mechanism of this action. (*Ibid.*)

CREOSOTE IN THE TREATMENT OF TYPHOID FEVER.—M. Morache presented a memoir to the Academy of Sciences, Paris, upon this subject, and sustained the following propositions: 1. Typhoid fever appears due to the introduction into the organism of a virus, of which the mode of action doubtless is the evolution of a ferment. 2. Creosote probably acts directly on this fermentation in modifying if not in annulling the morbid evolution. 3. More direct proofs failing, this action is shown by *(a)* diminution in the intensity of the fever; *(b)* diminution of the duration of the febrile period; *(c)* diminution of local and general typhoid symptoms; *(d)* local action upon the digestive mucous membrane. 4. Creosote should be selected in preference to phenic acid, which does not seem to give satisfactory results, and is not always as readily borne. 5. It appears rational to employ creosote in other infectious

maladies having an evolution similar to typhoid fever—variola, for example. 6. If the action of creosote may be accepted in the treatment of an infectious disease due to an organic fermentation, nevertheless nothing authorizes attributing to it a prophylactic virtue. *(Ibid.)*

A New Sign of Death.—M. E. Dubout proposes a *new sign of death;* viz., dropping into the eye a solution of atropia. Whenever this agent has no action upon the pupil it can be affirmed that muscular contractility has ceased; that is, that life has entirely abandoned the organism. It would nevertheless be necessary to resort to a counter-proof, and that we can have in the action of substances which contract the pupil; *e. g.*, Calabar bean, a very simple means to avoid an unfortunate error. (*Ibid.*)

Hysterical Aphonia.—Dr. Tanner says that he never fails to cure this obstinate nervous disease by means of electro-magnetism. He places the patient in a chair, gives her one handle of the instrument moistened into her hand, and with the other touches the tongue. The patient then screams out violently, and thus convinces herself and friends that she has *not* lost her voice. (Half-yearly Abstract.)

Treatment of Chorea.—Prof. Steiner holds that chorea in the majority of cases cures itself, though there are other cases which resist every remedial means. Certain remedies, however, ameliorate and shorten the duration of the disease in the first class of cases. In view of the anæmia so frequently present, Prof. Steiner orders iron, either alone or in combination with oxide of zinc, as in the following prescription: Ferri carbon. saccharati, 2 parts; zinci oxid., $\frac{1}{25}$ part; sacch. alb., 8 parts; M., ft. pulv. t. d. sumen. The diet should be easily digestible and abundant. If, after the employment of the iron for a fortnight, no improvement occurs, Prof. S.

resorts to the preparations of arsenic, by which the disease is often quickly and certainly cured, the general nutrition of the body and the appearance being at the same time much improved. He usually commences with one drop *per diem*, and increases the dose after three or four days to two, three, four, and five drops; then, if improvement has resulted, he withdraws the remedy in the same gradual way. Cold water, applied hydropathically, is sometimes very serviceable. If the disease owes its origin to rheumatism, the remedies appropriate to that diathesis must be administered. The subcutaneous injection of arsenicum, sulphur, chloroform, and morphia furnishes no satisfactory results. *(Ibid.)*

Treatment of Simple Ulcer of the Stomach.—Dr. C. Gerhardt says the aim of the treatment should be the protection of the ulcerated surface from the digestive action of the gastric juice. It should consist in the almost exclusive ingestion of milk, eggs, and meat, and in avoiding starchy or saccharine articles of food which give rise to the rapid development of acid; the meals should be frequent, in order that the action of the gastric juice upon the food may not be interrupted. It is necessary to avoid copious repasts, and especially articles of diet capable of swelling in the stomach; these in fact distend the base of the ulceration, excite pain, and expose the patient to the risks of perforation. When there is an extensive development of gas, advantage will be derived from the internal administration of carbon, and the application of cold compresses externally. These means sometimes suffice to bring about a cure. The employment of narcotics should be rejected; they produce no favorable result, and disturb the functions of digestion. One may, however, have recourse, in cases of obstinate vomiting, to the subcutaneous injection of morphia. Whenever there is acute pain recourse should be had to astringents; especially to the perchloride of iron, the nitrate of silver, and the sub-

nitrate of bismuth. For patients who are weak and liable to hæmatemesis, Dr. G. particularly recommends the repeated administration of perchloride of iron in three or four-drop doses to a glass of water. It is recommended, in cases where the seat of the ulcer is known, that the patient be ordered to take such a position that the ulcer and the ingested fluid may come in contact. The nitrate of silver is given in one-grain doses, in pills or in solution; bismuth is prescribed in doses of from six to ten grains. *(Ibid.)*

Strychnine an Antidote to Chloral.—It results from close experiments that strychnine, when administered after too powerful a dose of hydrate of chloral, diminishes and removes its effects, and without producing the noxious action peculiar to it. M. Liebreich therefore proposes to make use of injections of nitrate of strychnine as an antidote in accidents produced by a too energetic action of chloral or of chloroform. *(Ibid.)*

Dangers of Chloral.—When administered to man in health, in progressive doses of one and a half and two grammes daily, chloral determines (frequently on the second and third days) an exceedingly painful sensation in the epigastrium, acute colic, and nausea, with profuse perspiration. (*Ibid.*)

Solution of Morphine for Hypodermic Use.—The solution for the purpose should be an aqueous one, neutral if possible, and of such strength that six minims contain a maximum dose. A solution of morphia—one grain in six minims, the most convenient strength—may be made by first dissolving one drachm of the acetate (recently prepared) in about four fluid drachms of hot distilled water, adding a drop or two of diluted acetic acid, if the solution be not complete. Filter into a graduated measure, while hot, and the fluid being all passed through, wash the filter by sprink-

ling over it sufficient distilled water, that the whole filtered product when cold may measure exactly six fluid drachms. It is important that the acetate of morphia be recently prepared. The solution should not be kept long. When prepared as above it is almost void of color, but gradually changes to a vinegar-brown. If the acetate of morphia be not quite fresh, this color is produced in the solution when first prepared. Other salts of morphia might be used with advantage. Among these the so-called bimeconate is very soluble, and makes a tolerably stable solution; injected, it appears to be quite as active as the acetate, although it represents about one fourth less of pure morphia; but, being uncrystallizable, its composition as generally made may not be so uniform. The citrate is likewise a very soluble salt. The hydrochlorate and sulphate require upward of sixteen parts of water to hold them in solution; this prohibits their use for injecting hypodermically, as a large dose could not be conveniently administered by the syringe in ordinary use. As to the sulphate, this statement is opposed to that of Abl (quoted in Gmelin's Chemistry and Storrer's Dictionary of Solubilities), that it is soluble in two parts of water at 18.75° C. (about 66° F.) From repeated experiments, both with the freshly-prepared salt and others, this is found to be an error. This salt of morphia, which is easily crystallizable and very stable, is most preferred in the United States. *(Ibid.)*

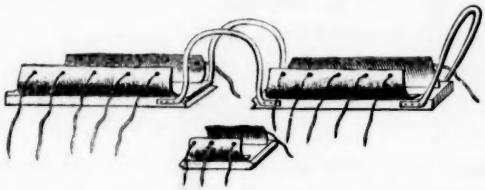
Subcutaneous Injection of Bubo.— Dr. Wertheim, attached to the syphilitic and skin department of the Rudolph Hospital, Vienna, states that he has given up all attempts at dispersing buboes by causing their absorption, and now treats them by a simple and efficacious procedure — subcutaneous injection. A solution of various substances, as morphia, camphor, sulphate of copper, etc., may be used as circumstances require, muriate of morphia (gr. iv ad aquæ dr. ij) being that which is usually preferable. The ripe abscess is punctured by

means of a thick needle, or the tube of a strong Pravaz syringe; after most of the pus has been gently pressed out, the injection of eight or ten drops of the solution is practiced, the patient being taught himself to empty every three hours the fluid that may have collected. The injection is at first repeated daily, and afterward at longer intervals. Although not essential, it is better for the patient to keep in bed. The advantages of the method are that the pain in the abscess almost immediately ceases, and the other inflammatory symptoms steadily diminish; the thickened pus is gradually transformed into a thinner and thinner exudation, gradually decreasing in quantity, and in three or four weeks it ceases entirely, and no cicatrix remains. The secretion of pus is confined to the spot, and the surrounding induration gradually diminishes. (*Ibid.*)

Transfusion of Blood.—The following are some practical conclusions that have been formulated by M. Marmonier: 1. The operation of transfusion is not a difficult one to practice, and it requires no special apparatus; 2. The dangers of this operation are less than has been generally thought; 3. It is not necessary to warm the blood before injecting it; 4. One hundred and fifty or two hundred grammes of blood is generally a sufficient quantity; 5. It is not indispensable to defibrinate the blood; 6. Finally, this operation should be but an extreme measure, reserved especially for combating post-hemorrhagic collapse. (*Ibid.*)

A Knee-splint.—Dr. Packard recently exhibited at the College of Physicians of Philadelphia a splint for keeping the limb at rest after excision of the knee. The same might be employed in cases of compound fracture. The splint, for which accurate measurements should be taken in each case, consists of a wooden portion, upon which the entire limb rests; leathers are tacked on, near its edges, to come up around the limb and give it a lateral support, being laced together by tapes passed

through eyelet holes. Additional steadiness may be given by the application of pasteboard splints to the upper surface of the limb. The peculiarity of the apparatus, however, consists in the arrangement for changing the dressings without disturbance of the limb. A portion of the wooden splint is sawed out, opposite the knee or other desired point, and the parts above and below are strongly bracketed together; a slide is then adapted to the gap, as in the cut, so that, the limb lying perfectly undisturbed, the slide may be withdrawn, the dressings changed, and the slide replaced. (See figure.)



An iron arch, screwed to the lower end of the splint, serves to protect the foot from pressure or lateral displacement; and by tying a piece of bandage between it and the brackets a sort of tent-like arrangement is made, so as to keep off the bedclothes from the limb. By crossing the tapes attached to the leathers of the slide, and tying them to the brackets, a greater degree of lateral support may be given to the affected part. When used, the whole splint is of course carefully padded with folded flannel, or raw cotton, each portion separately. (Amer. Jour. Med. Sciences.)

Treatment of Syphilis.—Mr. Morgan says he does not bind himself to any special rule of treatment. Some cases he treats mercurially, some by the inoculation and some by the sweating method; all have their recommendations and adaptability to certain cases. But where constitutional cachexia exists, he thinks the inoculation has, on the whole, been most satisfactory, though it is more troublesome to the surgeon,

and perhaps tedious to the patient; while, on the other hand, it can not "go wrong," as mercury, though most carefully administered, occasionally appears to do. (Dublin Quarterly.)

CEREBRO-SPINAL MENINGITIS.—Dr. Purcell, physician to the Cork Fever Hospital, describes three well-marked varieties of this affection. 1. The cerebro-spinal form, in which symptoms referrable to irritative disease of those parts are prominent; such as retraction of the head, pain and cramp of the muscles, delirium accompanied with fever. 2. The cerebro-spinal form, accompanied with purple blotches, appearing on the body or legs, where retraction of head and pain are prominent; and, *vice versa*, where slight retraction, the more prominent the rash. 3. The rapid variety, attended with purple blotches, embarrassed respiration and circulation, amounting to imperfect collapse, and followed by a state of sopor and insensibility, which advances to coma, excessive vomiting of green matter, if protracted by treatment, edges of rash become pustular, drying, and surface peeling off, leaving dark, blackish patches of coagulated blood; where pressure or irritation occur, the piece sloughs out, leaving a nasty, deep, excavated sore. *(Ibid.)*

SEA-TANGLE TENTS.—The laminaria digitata possesses all the requirements of a substance necessary to dilate; thus it is light, clean, easily procured, can be made of any length and size, possesses remarkable properties of dilatation, does not become fetid from absorption of discharges, and is very easy of introduction; moreover, it is capable of being so managed that one or more can be easily introduced into the cervix, so as to occupy it completely, according to the narrowness of the passage which we wish to dilate. *(Ibid.)*

Notes and Queries.

PERSULPHATE OF IRON IN HEMATEMESIS.—Dr. Woollen, of Moorfield, Ind., writes that he has lately used Monsel's solution of persulphate of iron in an alarming case of hemorrhage of the stomach with the best result. "The patient was greatly exhausted, having for a day or two passed blood by the bowels and suffered repeated attacks of syncope. A few hours before I was called she had vomited some twenty ounces of blood, a large portion being of a bright scarlet color. Believing that the blood was still being poured out into the stomach, I gave her fifteen drops of Ellis's preparation, properly diluted, every two hours, until some six or eight doses were taken, with directions that if it should cause much uneasiness of the stomach it should be discontinued. The remedy was well borne, and the hemorrhage ceased. The usual dose, as stated by Ellis, is from three to five drops; but, if properly diluted, a much larger dose can be given. I have also used it with advantage in two cases of dysentery, occurring in old persons, after the acute stage had passed; the symptoms assuming a typhoid character, attended with thin, offensive, clay-colored stools."

PELVIC HEMATOCELE.—Dr. Wm. E. Hatcher, of Richelieu, Ky., reports a most interesting case of pelvic hematocele and pyæmia, in which recovery took place under the use of brandy, ammonia, quinine, egg-nog, milk-punch, etc. The subject was a healthy lady, twenty-three years old, married, but had never borne children. From the 5th of November to the 8th of the following March menstruation absent, and she believed herself pregnant; at the date last mentioned the menstrual flow

appeared, continuing eight or ten hours, when severe pain in the abdomen occurred, constant desire to urinate, giddiness, and syncope, and the patient was almost pulseless. Upon abdominal examination a tumor could be distinctly felt, but none by vaginal or rectal; there was not even any bulging of the vaginal walls, nor fullness of the posterior cul-de-sac. Several hours elapsed before reaction took place. In three or four days, rigors and hectic; several days after, abscesses in various parts of the body, the first over the left scapula, but no evidence of any interiorly. On the 20th of March a sudden and free discharge of a large quantity of black blood from the vagina; no increase of prostration; gradual disappearance of the abdominal tumor and of pelvic symptoms. The purulent infection continued until the 15th of April, and convalescence was not established until ten days later. Dr. H. remarks, in conclusion, that had a vaginal tumor been discovered when suppurative action was first manifested it should have been evacuated; and that the case illustrates the fact that there may be considerable hemorrhage in the vicinity of the uterus, and no tumor discovered per vaginam or per rectum; and that even in pyæmia of the gravest character recovery may take place.

We wish to refer briefly to two or three points in this valuable report. As to the source of the intra-peritoneal hemorrhage,* of course it is impossible to approximate more than a mere probability. It would be of interest and value had the reporter stated whether there were other signs of pregnancy in addition to the menstrual suppression; but whatever the origin of the hemorrhage, it is true, as the Doctor found in his case,† "that pelvic effusions of blood, however great, can not give the sensation of a tumor prior

* Independently of an extra-uterine pregnancy, the three best demonstrated sources of such effusions are apoplectic hemorrhage from the ovaries, rupture of one of the vessels of the utero-ovarian plexus, and hemorrhage from the tubes.

† Bernutz and Goupil, vol. i, p. 542.

to the work of encysting, which gives them, as it were, a solid base."

As to opening the vaginal tumor, had such been discovered, when suppurative action was first manifested, we answer, Yes, if the tumor was an abscess; so if it was still a hematocele. Mr. Spencer Wells holds the following view as to puncturing pelvic abscess: "I am quite sure I am within the mark in saying that I have tapped from twenty to thirty cases of pelvic abscess. I can not recollect one death. I have known several cases of death where no puncture was made—some of them very painful cases—when I had urged puncture, and was overruled."

As to the general rule of non-puncture of hematoceles, the following passage from Courtz will be of interest:

"According to Récamier, the treatment of hematocele consists at first in the puncture of the tumor per vaginam; but the hemorrhage supervening in a patient of Malgaigne, the purulent infection which has followed the puncture in some cases, and the knowledge of the natural progress of the disease, have successively chilled the zeal of the physician for this operation. M. Nélaton, who at first adopted this rule, was the first to limit its application, and to-day he resorts to it only in those cases where the tumor is liquid and the pains are very severe. This opinion has been generally received in France and abroad. Seyfert, physician to the Prague Hospital, has resorted to puncture but once in sixty-four cases which he has treated in four years."

Rudimentary Uterus.—Dr. G. Wheeler Jones, of Danville, Illinois, describes a case of rudimentary uterus that recently came under his observation. A married woman, twenty-six years of age, applied to him, stating that since she was fifteen years of age she had taken a great variety of medicine to bring on her "periods," but without avail. Upon examination, the mammary glands were undeveloped; pelvis narrow; external genitals under normal size; vagina about five inches in length, but without rugæ, and where the cervix uteri should

be inserted into it there was found a small body about the size and shape of a common field bean, and in this there was an opening into which a fine probe could be passed three fourths of an inch. The most careful examination failed to detect any other representative of the normal uterus, or the presence of ovaries. Dr. Jones well observes that had such examination been made years before, a great deal of needless and therefore injurious medication would have been prevented.

CANCER OF THE BREAST.—Dr. D. R. Francis, of Savannah, Ohio, gives a case of cancer of the breast, in the ulcerated stage and with the glands of the axilla involved, which was greatly benefited by the local application and internal administration of carbolic acid.

PHYSICIANS AND THE LEGISLATURE.—An esteemed subscriber, Dr. John Stackhouse, writes: "The legislature of Kentucky will shortly convene. I beg to suggest to my brethren throughout the state that they urge upon their different representatives to support the following measures: 1. The passage of the registration bill; 2. The passage of a law making counties liable to physicians for attendance on the county poor; 3. The passage of a law preventing druggists and all other persons without license or diploma from prescribing or practicing as physicians; 4. The repeal of the present penalties attached to obtaining subjects for dissection." Dr. S. indulges the hope that concerted action on the part of the profession throughout the state will secure the necessary legislation in reference to these points.